



UNITED STATES PATENT AND TRADEMARK OFFICE

16

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,843	05/25/2001	Wolfgang Gebhardt	785.39987X00	4753

20457 7590 08/23/2002

ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VA 22209

EXAMINER

KWOK, HELEN C

ART UNIT	PAPER NUMBER
----------	--------------

2856

DATE MAILED: 08/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/856,843

Applicant(s)

Gebhardt et al.

Examiner

H. Kwok

Art Unit

2856



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 25, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 7 6) ☐ Other:

Art Unit: 2856

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities. Appropriate correction is required.

On page 2, lines 8 and 21, the specification should be self-contained without referring to the claims.

Claim Objections

3. Claims 1-13 are objected to because of the following informalities. Appropriate correction is required.

In claim 1, line 1, it appears that the word "in" should be deleted.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2856

5. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 3-4, the phrase “the ultrasonic-wave-generating unit” lacks antecedent basis.

In claim 6, the claiming of the feature “a third opening” is indefinite. As illustrated in the figures, there is two opening provided for the housing; hence, how can there be a third opening for the housing. Furthermore, there is no description of a third opening in the specification as presently disclosed.

In claim 8, line 2, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

In claim 10, line 4, the phrase “said opening” is vague. Which opening is being referred to?

In claim 12, there is no support in the disclosure for the medium being a solid body. Please clarify.

In claim 13, there is no support in the disclosure for the medium being a biological tissue. Please clarify.

Art Unit: 2856

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims ^{1-5, 10-13}~~1-13~~ are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,378,699 (Wickramasinghe).

With regards to claims 1-5 and 10-13, Wickramasinghe discloses a scanning acoustic microscope comprising, as illustrated in Figures 1-4, at least one ultrasonic-wave transducer unit 10 which couples ultrasonic waves into a medium 16 via a coupling medium (i.e. pressurized gas) provided between the transducer unit and a boundary surface of the medium 16; the ultrasonic waves being directed into a closed volume the interior of a housing 27 having a first opening 30 and a second opening such that a flow of gas (the pressurized gas entering through the first opening 30) is directed inside the closed volume and the flow of gas is exited through the second opening which is directly facing the boundary surface of the medium. (See, column 3, line 36 to column 4, line 4, line 35; column 5, lines 19-29).

Claim Rejections - 35 USC § 103

Art Unit: 2856

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,368,699 (Wickramasinghe) in view of U.S. Patent 4,787,407 (Vogel).

With regards to claim 6, the reference does not disclose a third opening for the housing. It would have been an obvious design expedient at the time of invention to a person of ordinary skill in the art to employ another opening to the housing since this would not have alter and/or change the performance of the device. Furthermore, it would have been a decision to the operator manufacturing the device how many openings would be preferable at the time of making.

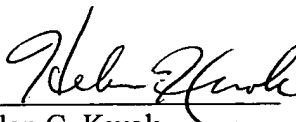
With regards to claims 7-9, Wickramasinghe does not teach a sound-conducting means in a funnel-shaped for propagating the flow of gas without interferences. Vogel discloses an apparatus comprising, as illustrated in the figure, a sound-conducting means (i.e. a mirror) to couple the ultrasonic waves in the flow within a cylindrical circulator 5 to guide the coupling medium past the transducer unit 1. (See, column 2, lines 9-26; column 3, lines 7-22). It would have been obvious to an artisan in the art to have readily recognize the advantages and desirability to employ a sound-conducting means as suggested by Vogel to the apparatus of

Art Unit: 2856

Wickramasinghe to couple and direct the ultrasonic waves along the coupling medium such that the ultrasonic waves is directed to the medium without having any interferences to provide a better and enhanced ultrasonic waves to the medium. Furthermore, it is well known in the art to include some type of sound-conducting means to prevent the ultrasonic waves from interferences so that better ultrasonic waves are obtained for measurements.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen Kwok whose telephone number is (703) 308-8149.


Helen C. Kwok
Art Unit 2856

hck
August 21, 2002